CZECHOSLOVAKIA

SLAVIK, J; APPELT, J; SLAVIKOVA, L.

Institute for Medical Chemistry, Purkyne University, Brno.

Prague, Collection of Czechoslovak Chemical Communications, No 11, November 1965, pp 3961-3963.

"Papaveraceae alkaloids. Part 31: Alkaloids from Papaver commutation Fisch et Mey."

L 30943-66

ACC NR: AP6023156 SOURCE CODE: CZ/0060/65/000/004/0161/0164

AUTHOR: Sturma, Alois--Shturma, A. (Lt. colonel; Doctor of medicine; Candidate of sciences); Slavicok, Jaroslav--Slavichek, Ya. (Graduate physician) 17 B

ORG: [Sturma] VPA KG, Prague; [Slavicek] Physiological Institute, FVL, KU, Prague (Fyziologicky ustav FVL KU)

TITLE: Physiological determination of physical fitness in relation to sports achievements of students 12

SOURCE: Vojenske zdravotnicke listy, no. 4, 1965, 161-164

TOPIC TAGS: man, physical fitness, physiologic parameter

ABSTRACT: 31 healthy men aged 31-35 years were subjected to a standard physical load of 10.5 kgm/kg body weight (step test) for 5 minutes. The following were investigated: physical fitness index, pulse rate after physical stress, respiratory rate during and after physical exertion, the minute tidal volume during and after physical stress. The average fitness value was 89; the values found varied between 71 and 102. This shows the low fitness of the subjects, because an average athlete is subjected to stresses of 14 kgm/kg body weight. Orig. art. has: 7 figures and 1 table. [Based on author's Eng. abst.] [JPRS]

SUB CODE: 06 / SUBM DATE: none / ORIG REF: 007 / OTH REF: 004

Card 1/1 UDC: 613.7-072.7

0915 1367

S/276/63/000/001/018/028
A006/A101

AUTHORS: Němeček, Miloslav, Slavík, Jaroslav

TITLE: A method of manufacturing heat-exchanger ribs from metal strip

PERIODICAL: Referativnyy zhurnal, Tekhnologiya mashinostroyeniya, no. 1, 1963, 37, abstract 1V170 P (Czechosl. Patent, cl. 7b, 16/01, no. 100645, of August 15, 1961)

TEXT: A patent is delivered for a new method of manufacturing heat exchanger ribs. A metal strip is passed through special rolls 1, 2 (Figure 1) producing two-sided corrugation. The corrugation height decreases toward the strip center. The rolls produce along the strip axis a uniform strap of width a (Figure 2). After bending, the strip is cut along the central line 4 of the strap. In this shape the rib is prepared to be wound onto a conducting pipe. There are 2 figures.

V. Kovalenko

[Abstracter's note: Complete translation]

Card 1/2

45648

Z/031/63/011/001/002/002
E073/E435

/ 1210

AUTHORS: Slavík, Jaroslav and Čapka, František

TITLE: Explosive forming. Experience gained by n.p. Strojírny prvni pětiletky, Kunovice

PERIODICAL: Strojírenská výroba, v.11, no.1, 1963, 6-9

TEXT: In the initial experiments a steel tube of 500 mm inner diameter was embedded in a piece of reinforced concrete of 1500 mm diameter, 1200 mm depth. The sheet to be formed was inserted as a liner, inside which was placed a PVC bag filled with water. A 100 mm rubber pad was placed at the bottom, below the PVC bag, to attenuate the vertical pressure during the explosion produced by a 100 g charge which was suspended on a wire and electrically detonated. The service life of the equipment was very low; cracks formed in the concrete immediately after the first explosion, which then propagated very rapidly during subsequent explosions. Several other systems, which were tried and proved unsuccessful, are briefly described. The developed mould system consists of a welded steel structure in which the part to be formed is placed at the bottom of the mould and the

Card 1/2

SLAVIK, Jaroslav; CAPKA, Frantisek

Explosion forming. Stroj vyr 11 no.1:6-9 '63.

1. Strojirny prvni petiletky, n.p., Kunovice u Uherskeho Hradiste.

SLAVIK, Jaroslav

Central House of Transportation and Communication Technique helping the development of railroad transportation. Zel dop tech 10 no.9:587 '62.

The precipitation of the organic matter from the sulfite
liquor. J. Slavik and R. Bouček. Chem. Zvesti 1, 299-
305(1947); cf. C.A. 43, 7227d. In the pptn. by pressure,
the MeO group splits off from the aromatic ring of the
lignin. The free ortho and para positions are activated
towards the liberated phenolic group and lignin is suitable
for further aldehyde condensation and the formation of a
three dimension macromol. The chem. constitution of
lignin is explained as the formation and decompn. of
macromols. from phenol-aldehyde condensation product.
Jan Micka

(4)

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The determination of the hydrogenation velocity of phenol and of its homologs. Jiří Slavík and Jan Janas. Chem. Obzor 25, 8-12(1950).—The reaction kinetics of hydrogenation of phenols to hydroaromatic alcs. was detd. This reaction is of the first, and exceptionally of the zero-order. An app. that permits calcn. of the const. of the reaction velocity of the phenol is described. The hydrogenation ability follows from the relation of the values detd. for a standard phenol and for the phenol under investigation. Jan Micka

SLAVIK, Jiri

CZECH

Alkaloids of the Papaveraceae. II. Separation of chelerythrine and sanguinarine, and detection of two new alkaloids in Chelinodium maius L. Jiří Slavík and Leonora Slavíková (Masarykova Univ., Brno, Czech.). *Chem. Listy* 48, 1382-6(1954); *Collection Czechoslov. Chem. Communs.* 20, 21-20(1954)(in German).—In addn. to *chelerythrine* (I) and *sanguinarine* (II), two new alkaloids forming nonbasic pseudocyanides were isolated from *Chelinodium maius L.*, viz. *chelirubine* (III) (forming purple salts), and *chelilutine* (IV) (forming orange salts). By direct crystn., only chelerythrine was obtained in sufficient purity in form of its pseudocyanide, m. 258–9° (from Me_2CO), the other three alkaloids being obtained by chromatography over Al_2O_3. I m. 282–3° (decompn.) 207–8° (from $CHCl_3$-EtOH mixt.); *pseudocyanide*, m. 260–1° (from $CHCl_3$-EtOH). II m. 266–7° (decompn.) (on rapid heating it m. 275–6°), m.p. after boiling with $CHCl_3$-EtOH mixt. 205–6°; *pseudocyanide*, m. 238–9° (from $CHCl_3$-EtOH). Paper chromatography on Whatman no. 1 in BuOH-AcOH-H_2O 100:10:30 (*a*), and 86:1:14 (*b*) gave the following values R_f (*a*,*b*): I 0.56, 0.25; II, 0.44, 0.25; III, 0.55,

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Jiri Slavik

0.49; and IV, 0.65, 0.49. III. Alkaloids of Eschscholtzia californica Cham. *Chem. Listy* 1387–90; *Collection Czechoslov. Chem. Communs.* 20, 27–30(in German).—The following alkaloids were found in *Eschscholtzia californica Cham.*: *chelerythrine, sanguinarine, chelirubine, chelilutine, protopine* (m. 206–7°), α- and β-*allocryptopine* (m. 159–60 and 169–70°, resp.), and bases of phenolic nature. Pseudocyanides of chelirubine (m. 269–70°), sanguinarine (m. 237–8°), and chelerythrine, (m. 259–60°) were identical with compds. prepd. from *Chelinodium maius L.* IV. Alkaloids of Glaucium flavum Crantz. Jiří Slavík. *Chem. Listy* 1391–3; *Collection Czechoslov. Chem. Communs.* 20, 32–5(1955) (in German).—From the root of *Glaucium flavum Crantz.* were isolated: *protopine*, m. 206° (from $CHCl_3$-EtOH), α-*allocryptopine*, m. 158–9° (from EtOH), *chelirubine* (*pseudocyanide*, m. 269–9°), *sanguinarine* (*pseudocyanide*, m. 237–8°), and *chelerythrine* (*pseudocyanide*, m. 260–1°). No glaucine was found in the root. M. Hudlický

CZECH

Alkaloids of papaveraceae. V. Isolation of stylopine from Chelidonium maius L. Jiří Slavík (Masarykova Univ., Brno, Czech.). *Chem. Listy* 48, 1187-9(1954); *Collection Czechoslov. Chem. Communs.* 20, 198-201(1955)(in German); cf. *C.A.* 49, 1098*i*.—From the supraterranean parts of *Chelidonium maius L*, the following alkaloids were isolated (the first two had not been detected in the Chelidonium before): *dl-stylopine*, m. 221° (with concd. H_2SO_4 green, then violet color, with concd. HNO_3 yellow, turning yellow-orange; tests according to Erdmann blue-green, turning aquamarine; Fröhde, dark green, turning intensive blue; Marquis, violet-blue, then wine-red); *l-stylopine*, m. 203°, $[\alpha]_D^{20}$ −300.0°; *chelidonine*, m. 135–6° (from EtOH); *protopine*, m. 207–8°; *α-allocryptopine*, m. 159–60°; *chelirubine* (*pseudocyanide*, m. 269–70°); *sanguinarine* (*pseudocyanide*, m. 238–9°); *chelerythrine* (*pseudocyanide*, m. 259–60°); and *coptisine*. M. Hudlický

SLAVIK, Jiri

Papaveraceae alkaloids. I. Chelidonium maius L. substances. Cesk. farm. 4 no.1:15-17 Jan 55

1. Z Ustavu pro lekarskou chemii university v Brne.
(ALKALOIDS,
Chelidonium maius alkaloids)
(PLANTS,
Chelidonium maius alkaloids)

SLAVIK, J.

Alkaloids of the Papaveraceae. IV. Alkaloids of Glaucium flavum Grantz. In German
P. 32

Vol. 20, no. 1, Feb. 1955
SBORNIK CHEKHOSLOVATSKIKH KHIMICHESKIKH RABOT
Praha, Czechoslovakia

So: Eastern European Accession Vol. 5, No. 4, 1956

SLAVIK, J.

Alkaloids of the Papaveraceae. V. Isolation of stylopine from Chelidonium majus L. In German. p. 198

Vol. 20, no. 1, Feb. 1955
SBORNIK CHEKHOSLOVATSKIKH KHIMICHESKIKH RABOT
Praha, Czechoslovakia

So: Eastern European Accession Vol. 5, No. 4, April 1956

SLAVIK, JIRI

5900

Alkaloids of papaveraceae. VI. Alkaloids of Macleaya microcarpa. Jiří Slavík and Leontina Slavíková (Masarykova Univ., Brno, Czech.). *Chem. Listy* 49, 106–10; *Collection of Czechoslov. Chem. Communs.* 20, 356–61(1955)(in German); cf. *C.A.* 49, 11673b.—Acidified-water extn. of leaves of *Macleaya microcarpa* (*Maxim.*) *Fedde* yielded 0.6% alkaloids from which were isolated *protopine*, m. 207°, *cryptopine*, α- and β-*allocryptopine*, m. 160–1° and 169°, resp., *chelerythrine* (I), and *sanguinarine* (II). From the EtOH ext. of the plant roots was obtained 1.23% alkaloids, composed of the above alkaloids, as well as *chelirubine* (III), *chelilutine* (IV), *coptisine* (V), *berberine* (VI), and a new alkaloid, *macarpine* (VII), colorless base [*HCl salt*, bright red needles (from dil. HCl); *pseudocyanide*, m. 238° (from $CHCl_3$-EtOH)]. R_f values for BuOH-AcOH-H_2O (100:-CHCl$_3$-EtOH)]. R_f values for BuOH-AcOH-H_2O (100:10:30) (descending method) are listed: I 0.55, II 0.43, III 0.53, IV 0.65, V 0.46, VI 0.62, *tetrahydro derivs.* of V and VI 0.90 and 0.79, resp., and VII 0.50. M. Hudlický

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SLAVÍK, JIŘÍ

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Alkaloids of papaveraceae. VII. Argemone mexicana. Leonora Slavíková and Jiří Slavík (Masarykova Univ., Brno, Czech.). *Chem. Listy* 49, 1548-9(1955); cf. *C.A.* 50, 1050e.—Extn. with EtOH of superterranean parts and of roots of *argemone mexicana L.* cultivated in Czechoslovakia gave the following alkaloids (amt. in %, resp.): *allocryptopine*, m. 160–1° (0.047, 0.009); *protopine*, m. 206–7° (0.028, 0.091); *berberine* (0.012, 0.011); *dihydrosanguinarine* (0.011, —); *dihydrochelerythrine* (0.003, —); *sanguisarine* and *chelerythrine* (0.001, —); *coptisine* (—, traces); *sanguinarine* (—, 0.005).

M. Hudlický

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SLAVIK, J.; SLAVIKOVA, L.

Alkaloids of the Papaveracease. VIII. Glaucium corniculatum Curt. p. 969.
(Chemicke Listy, Praha. Vol. 50, no. 6, June 1956.)

SO: Monthly List of East European Accession (EEAL) LC, Vol. 6, no. 7, July 1957. Uncl.

Slavik, J.

Polarography of alkaloids. XXI. The constitution of protopine and related compounds. J. Slavík, L. Slavíková, V. Preininger, and F. Šantavý. *Collection Czech. Chem. Communs.* 21, 1058-62(1956)(in German).—See *C.A.* 50, 10564c. E. J. C.

Polarography of alkaloids. XXI. The constitution of protopine and related compounds. J. Slavík, L. Slavíková, V. Preininger, and F. Santavý (Univ. Olomouc, Czech.). *Chem. Listy* 50, 656–8 (1956); cf. *C.A.* 49, 10030d.—Polarographic studies of the dependence of the kinetic wave of protopine (I) on pH lead to the conclusion that in an acid soln. the carbonyl group of I is not preserved. A polarographically reducible group is found in the pH range 6–11. The carbonyl group of substances having quaternary N in the mol. remain preserved in the entire range of the Britton-Robinson buffer soln. This is concluded from the pH-dependence of the 2-electron-diffuse-wave of protopine methiodide. V. Stráfelda

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SLAVIK, J. : SLAVIKOVA, L.

"Alkaloids of poppies (papa-veraceae).VIII Alkaloids in the red poppy (Glauclum corniculatum Curt.). In German."

p. 279 (COLLECTION OF CZECHOSLOVAK CHEMICAL COMMUNICATIONS. SBORNIK CHECKHOSLOVATSKIKH KHMICHESKIKH RABOT. -- Praha, Czechoslovaka.) Vol. 22, No. 1, Feb. 1957

SO: Monthly Index of East European Accession (EEAI) LC, Vol. 7, No. 5, May 1958

CZ/8-52(82)-10-20/39

AUTHOR: Slavík, Jiří

TITLE: Alkaloids of the Papaveraceae. X. (Alkaloidy rostlin makovitých (Papaveraceae) X. Secondary Alkaloids from Papaver rhoeas L. and Dicentra spectabilis L. (O vedlejších alkaloidech z máku vlčího (Papaver rhoeas L.) a srdcovky nádherné (Dicentra spectabilis L.)

PERIODICAL: Chemické Listy, 1958, Vol.52(82), Nr 10, pp 1957 - 1964 (Czechoslovakia)

ABSTRACT: It was found that Papaver rhoeas L. contains, besides rhoeadine, several other alkaloids; of these protopine and coptisine were identified as well as bases which are further referred to as alkaloids I, II, III and IV. During the conversion of rhoeadine to rhoeagenine, the formation of methanol was observed. 0.12% alkaloids were found in the flowering part of local plants and 0.11% in the roots. A small amount of sanguinarine, chelerythrine, chelilutin, chelirubine and coptisine were found besides protopine in Dicentra spectabilis L. Tables 1 and 2 give the alkaloid content of the two plants. Details of the separation of the alkaloids from the flowering parts and the roots and of the

Card 1/2

CZ/8-52(82)-10-20/39

Alkaloids of the Papaveraceae. X. Secondary Alkaloids from Papaver rhoeas L. and Dicentra spectabilis L.

cleavage of rhoeadine with diluted acids from Papaver rhoeas L. are given. There are 2 Tables and 13 References: 6 English, 5 German, 1 French and 1 Czech.

ASSOCIATION: Ústav pro lékařskou chemii, Masarykova universita, Brno (Institute for Medicinal Chemistry, Masaryk University, Brno)

PRESENTED: 7th January, 1958.

Card 2/2

SLAVIK, J.; SLAVIKOVA, L.

Alkaloids of the poppy plants (Papveraceae). XI. Some additional alkaloids from Glaucium flavum Cr. and G. flavum var. fulvum (Smith) Fedde. In German. Coll.Cz.Chem. 24 no.9:3141-3147 S '59.

(EEAI 9:5)

1. Institut fur medizinische Chemie, Masaryk-Universitat, Brno.
(ALKALOIDS) (PAPAVERACEAE) (POPPY) (HORN POPPY) (GLAUCIUM)

SLAVIK, J.

Alkaloids of poppy plants (Papaveraceae). XII. Constitution of (-)-Norchelidonin, a new alkaloid from Glaucium flavum Cr. and G.flavum var. fulvum (Smith) Fedde. In German. Coll.Cz.Chem. 24 no.11:3601-3605 N '59. (KRAI 9:5)

1. Institut fur medizinische Chemie, Masaryk-Universitat, Brno.
(Alkaloids) (Papaveraceae) (Horn poppy) (Poppy)

SLAVIK,J.

Alkaloids of thepoppy plants (Papaveraceae). XIII. Alkaloids from Glaucium vitallinum Boiss.et Buhse. Coll Ch Zhem 25 no.12: 3999-4003 '59. (ZEAI 9:6)

1. Institut fur medizinische Chemie, Masaryk-Universitat, Brno.
(Alkaloids) (Papaveraceae) (Horn poppy)

SLAVIKOVA, L.; TSCHU SHUN; SLAVIK, J.

Alkaloids of poppy plants (Papaveraceae). XIV. Alkaloids from Argemone alba Lestib. Coll Cz chem 25 no.3:756-760 Mr '60. (EEAI 9:12)

1. Institut fur medizinische Chemie, Masaryk-Universitat, Brno (for Slavikova, Slavik). 2. Jetzige Adresse: Institut fur Pflanzen-Chemie, Chinesische Akademie der Wissenschaften, Peking (for Tschu Shun)

(Alkaloids) (Papavereceae) (Argemone alba)

SLAVIK, J.

Alkaloids of poppy plants (Papaveraceae). XVI. Alkaloids of some Meconopsis species. Coll Cz Chem 25 no.6:1663-1666 Je '60.
(EEAI 10:9)

1. Institut fur Medizinische Chemie, Masaryk-Universitat, Brno.

(Poppy) (Papaveraceae) (Alkaloids) (Meconopsis)

SLAVIK, J.; SLAVIKOVA, L.

Alkaloids of poppy plants (Papaveraceae). XVII. New alkaloids from Sanguinaria canadensis L. Coll Cz Chem 25 no.6:1667-1675 Je (60.
(EEAI 10:9)

1. Institut fur Medizinische Chemie, Masaryk-Universitat, Brno.

(Poppy) (Papaveraceae) (Alkaloids)
(Sanguinaria canadensis)

SLAVIK, J.; SLAVIKOVA, L.

Alcaloids of poppy plants (Papaveraceae). Part 19: Alcaloids from Dicranostigma lactucoides Hook. F. et Thoms. Coll Cz Chem 26 no.7: 1839-1844 Jl '61.

1. Institut fur medizinische Chemie, Purkyne Universitat, Brno.

(Slavik, J.) (Slavikova, L.)

SLAVIK, J

SURNAME, Given Names

Country: Czechoslovakia

Academic Degrees: [not given]

Affiliation: Institute of Medical Chemistry, J E Purkyne University (Institut fuer medizinische Chemie, J E Purkyne-Universitaet) Brno

Source: Prague, Collection of Czechoslovak Chemical Communications, Vol 26, No 11, November 1961, pp 2933-2939

Data: "Alkaloids of the Poppy (Papaveraceae). XX. On the Alkaloids from Stylophorum diphyllum (Michx) Nutt."

CZECHOSLOVAKIA

SLAVIK, J; SLAVIKOVA, L.

Institute of Medical Chemistry of Purkyne University, Brno (for both)

Prague, Collection of Czechoslovak Chemical Communications, No 7, 1963, pp 1720-1727

"Alkaloids of Poppy Plants (Papaveraceae) XXI. On the Alkaloids of Meconopsis cambrica (L.) Vig."

CZECHOSLOVAKIA

SLAVIK, J.

Institute of Medical Chemistry of Purkyne University, Brno

Prague, Collection of Czechoslovak Chemical Communications, No 7, 1963, pp 1738-1745

Alkaloids of Poppy Plants (Papaveraceae) XXIII. On Alkaloids of Papaver dubium L. and On the Constitution of Aporhein."

CZECHOSLOVAKIA

SLAVIK, J; SLAVIKOVA, L.

Institute of Medical Chemistry of Purkyne University (Institut für medizinische Chemie, Purkyne-Universität), Brno (for both)

Prague, Collection of Czechoslovak Chemical Communications, No 9, 1963, pp 2530-2533

"Alkaloids of the Poppy Plant (Papaveraceae) XXV. Alkaloids of Glaucium oxylobum Boiss. et Buhse."

DOLEJS, L.; HANUS, V.; SLAVIK, J.

A mass spectrometric study of protopine alkaloids. Coll Cz Chem 29 no.10:2479-2483 O '64.

1. Institute of Organic Chemistry and Biochemistry, Institute of Physical Chemistry, Czechoslovak Academy of Sciences, Prague, and Department of Chemistry, Faculty of Medicine, Purkyne University, Brno.

L 20439-66 EWP(1)/EWP(k) JD/AT

ACC NR: AP6009495 SOURCE CODE: CZ/0032/66/016/003/0234/0235

INVENTOR: Slavik, J. (Kunovice); Capka, F. (Kunovice)

ORG: none

TITLE: Explosive forming, CZ Pat. No. PV 4882-63, Class 7c

SOURCE: Strojirenstvi, v. 16, no. 3, 1966, 234-235

TOPIC TAGS: sheet forming, plate forming, explosive forming, forming equipment

ABSTRACT: This patent introduces equipment for explosive forming of differently shaped sheet and plate parts. The equipment (Fig. 1) consists of heavy steel

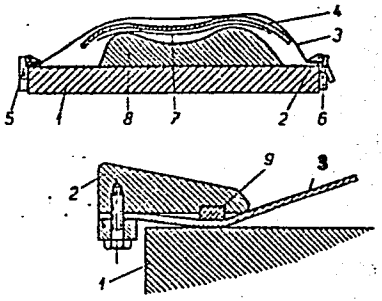

Fig. 1. Explosive forming device

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L 20435-66
ACC NR: AP6009495

plate 1, with clamps 6 and ring 2 connected to the plate by hinge 5. Sheet blank 7 is placed on top of die 8 resting on the plate and is covered with heavy rubber plate 4. All are then covered with thin rubber sheet 3, which is tightly clamped to the plate with ring 2 and sealing ring 9. The volume under rubber sheet 3 is evacuated and the whole unit is submerged in water, where the forming is performed. Orig. art. has: 1 figure. [DV]

SUB CODE: 13/ SUBM DATE: 03Spe63/ ATD PRESS: 4122

Card 2/2 ULR

SLAVIK, Jiri

Chemical Abst.
Vol. 48 No. 3
Feb. 10, 1954
Mineralogical and Geological Chemistry

Heavy minerals from the weathered material of the eastern part of the central Bohemian pluton. Jiří Slavík. *Sborník Ústřed. Ústavu Geol.* 19, 337–420(1952)(Engl. summary).—Twenty samples of weathered igneous rocks were crushed, sieved, sepd. with $CHBr_3$ and the fraction of d. greater than 2.66 was further sepd. magnetically. The following minerals were found: amphibole, anatase, andalusite, apatite, biotite, brookite, epidote, fluorite, garnet, ilmenite, magnetite, monazite, muscovite, pyrite, pyroxenes, rutile, titanite, tourmaline, zircon. Correlations were found between the assocns. of heavy minerals and the general type of rock. H. Newcombe

SLAVIK, J.

Remarks on the sedimentary development of the Kosice and Trebisov basins and vicinity in eastern Slovakia. p. 1.
ROZPRAVY. RADA MATEMATICKO-PRIRODOVEDECKA, Praha, Vol. 65, no. 5, 1955.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, no. 10, Oct. 1955, Uncl.

SLAVIK, J.

SLAVIK, J. Report on the dacitic tuffites in the Marine Tortonian of the Outer Carpathian Basin in Moravia, p. 29

Vol. 31, No. 1, 1956
VESTNIK
GEOLOGIE A GEOLOGY
Praha, Czechoslovakia

So: East European Accession, Vol. 6, No. 2, Feb. 1957

SIAVIK, J.

"Notes on the geolic structure of the coal basin in the area of Hnojne below the Vihorlat mountain range."

p. 82 (Casopis Pro Mineralogii A Geologh, Vol. 2, no. 3, 1957, Czcholovakia)

Montly Index of East European Accessions (EEAI) LC. Vol. 7. No. 2, February 1958

SLAVIK, J.

"Possibilities of a metallogenesis in the Vihorlat Mountains."

p. 76 (Geologicky Sbornik, Vol. 9, no. 1, 1958, Praha, Czechoslovakia)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, no. 9, September 1958

SLAVIK, J.

GEOGRAPHY & GEOLOGY

Periodicals: GEOLOGICKE PRACE No. 49, 1958

SLAVIK, J. Origin of the Velke Okno Lake and its basins in the Vihoriat Mountain Range. p.199

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 5, May 1959, Unclass.

SLAVIK, Jiri; SKOCEK, Vladimir

Montmorillonite clays in the Permian of the Kladno-Rakovnik Basin. Vest ust geol 39 no.2:141-142 Mr'64

1. Ustredni ustav geologicky, Praha.

SLAVIK, Josef

"E.F.F.Chladny, the father of acoustics and meteoritics" by Ivan Rumanovsky and Ivan Stadtrucker. Reviewed by Josef Slavik. Pokroky mat fyz astr 7 no.6:364 '62.

ED

Bibliography

Anti-Vibration Paints

By J. B. Slavik and J. Němec. (From *Strojirenstvi*, Vol.1, No. 1, 1951, pp. 29-33, 7 illustrations, 5 tables.)

A series of experiments was carried out to determine the effect of several Czech-produced anti-vibration paints on the damping of vibrations, particularly those in the sonic range.

Preliminary Experiments.

An experimental paint produced by one of the authors and containing suitably prepared slag wool and varnish was tested on sheets 100 cm × 67 cm (40 in. × 26 in.) and 0·5 and 1 mm in thickness. The attenuation of the sound was measured by a subjective method in a totally noiseless room, using a stop watch. To produce the vibrations, the sheets were freely suspended and a wooden ball weighing 0·2 kg (0·44 lb) was dropped on its surface from a height which was identical for all the tests. The time was measured by two observers, and in each case the average of 20 readings was evaluated. The measuring accuracy was 15 to 20 per cent. The sound level at the moment of impact of the wooden ball on the sheet was measured by a General Radio Co., Type 759-A sound level meter (in decibels), the microphone being placed at a distance of 150 cm from the sheet. Three alternative paints of this type were tested and the results obtained are summarised in Figs. 1 and 2 and Table 1

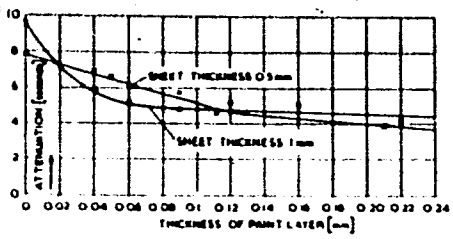

Fig. 1. Influence of the anti-vibration paint A on sound attenuation.

Anti-vibration Paint A.

The results obtained are given in Fig. 1. In the case of a 0·22 mm thick paint coating, the attenuation of the sound is reduced by about 50 per cent for 0·5 mm thick sheets and by about 50 per cent for 1 mm thick sheets. In addition to the attenuation of the sound due to the impact, the attenuation of the sheet due to distortion also exerts an influence in the case of the thinner sheets. The paint had no influence on the sound level at the instant of impact. The paint is thinly liquid and can be sprayed on.

Vibrations . Acoustics

S. A.

Sect. A

3394. Sound absorption by perforated plates. 534.21
J. B. SLAVIK, B. KLEBES AND V. ZADRAZIL. *Przegl. Telekomun.*, No. 5, 139-43 (May, 1951) *In Polish.*
An interim report on experimental investigations of the theoretical formulae. The method of standing waves between two parallel plates was used. Good absorption was observed down to 300 c/s.
A. RCZANIECKI

SLAVIK, J.

"The problem of sound absorption of material." P. 521.

SLABOPROUDY OBZOR. (Ministerstvo presneho strojirenstvi, Ministerstvo spoju a Vedecka technicka spolecnost pro elektrotechniku pri CSAV). Praha, Czechoslovakia, Vol. 16, No. 10, Oct. 1955.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8, August 1959.
Uncla.

SLAVIK, J.: JAHODA, J.: KLIMES, P.

The stiffening of large vibrating surfaces. p. 667

STROJIRENSTVI (Ministerstvo tezkeho strojirenstvi, Ministerstvo presneho strojirenstvi a Ministerstvo automobiloveho prumyslu a zemedelskych stroju) Vol. 6, No. 10, Oct. 1956

Praha, Czechoslavakia

SOURCE: East European List (EEAL) Library of Congress, Vol. 6, No. 1, January 1957

SLAVIK, J.

Slavik, J.; Vachek, J.

Slavik, J.; Vachek, J. Problems of forming Czech national logatoms; also comments by B. Borovickova and F. Kroutl. p. 634.

Vol. 17, no. 11, Nov. 1956
SLABOPROUDY OBZOR
TECHNOLOGY
Czechoslovakia

So. East European Accessions, Vol. 6, May 1957
No. 5

SLAVIK, J.; JAHODA, M.

Modification of Hartmann's air-jet generator; a preliminary communication. p. 63. (Matematicko-Fyzikalny Casopis, Vol. 7, No. 1, 1957, Bratislava, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 8, Aug 1957. Uncl.

SLAVIK, I.B.

46-2-17/23

AUTHOR: Slavik, I.B.

TITLE: Acoustics developments in Czechoslovakia. (Razvitiye akustiki v Chekhoslovakii)

PERIODICAL: "Akusticheskiy Zhurnal" (Journal of Acoustics), 1957, Vol.3, No.2, pp. 197-199 (U.S.S.R.)

ABSTRACT: The author presents a general survey of the state of the acoustical science and technology up to the present time. The main works on acoustics are listed. The following scientific acoustics centres are mentioned: the Chair of Physics and the Chair of Sound and Motion Picture Engineering of the El. Engineering Department of the Czechoslovakian Polytechnic Institute in Prague; the Laboratory of the Medical Acoustics of the Faculty of Medicine and the Chair of Phonetics of the Faculty of Philosophy of the Karlov Prague University; the Scientific Research Institute of Radio Communications; the Scientific and Reseach Institute of Line Communications; the Scientific and Research Institute of Heat Technology; the Scientific and Research Institute of Sound Recording and Reproduction; the Scientific and Research Institute of Motor Transport; the Scientific and Research Institute of Building Materials and Civil Engineering; the Scientific and Research Institute of Electrical Communications. Periodicals: "Slaboprendy Obzor"

Card 1/2

CZECHOSLOVAKIA/Acoustics - Architectural Acoustics J-7

Abs Jour : Ref Zhur - Fizika, No 9, 1958, No 21353

Author : Slavik J.B., Klimes B., Vondrus K., Kanta F.
Inst : Not Given
Title : "Equisons" as Auxiliary Means for Design of Sound Insulation

Orig Pub : Strojirenstvi, 1957, 7, No 12, 893-894

Abstract : When sound insulating a closed volume, uniform acoustic treatment of all the surfaces may be expensive and of little effectiveness. It is indicated that determination of the places requiring reinforced sound insulation can be readily effected with the aid of "Equisons," which are surfaces that joint points with equal levels of sound loudness. By way of an example, the plot of "Equisons" in the cabin of a passenger airplane is given. The plot shows clearly places that require reinforced sound insulation.

Card : 1/1

SLAVIK, J. B

CZECHOSLOVAKIA/Acoustics - Architectural Acoustics J-7

Abs Jour : Ref Zhur - Fizika, No 6, 1958, No 14051

Author : Slavik J.B., Ticky J.
Inst : Not Given
Title : Estimate of the Coefficients of Absorption of Sound, Measured by the Method of Standing Waves and by the Reverberation Method

Orig Pub : Slaboproudy, obzor, 1957, 18, No 8, 545-548

Abstract : After examining the literature data, the author gives results of measurements of the coefficient of absorption of sound of certain acoustic materials. It is indicated that the problem needs additional theoretical and experimental research. Bibliography, 17 titles.

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54

Klimeš is of the Katedra fysiky na elektrotechnické fakultě Českého vysokého učení technického, Praha (Physics Department of the Electrotechnical Faculty at the Czech School of Higher Technical Education, Prague). There are 104 references: 43 Soviet, 20 Czech, 11 German, 2 French, and 28 English.

TABLE OF CONTENTS:

Fundamentals of Atomic Physics (Cont.)

AVAILABLE: Library of Congress

Card 5/5

TM/mg
11-3-59

CZECHOSLOVAKIA/Acoustics - General Problems J-1

Abs Jour : Ref Zhur - Fizika, No 5, 1959, No 11444

Author : Slavik J.B.
Inst : -
Title : Soviet Acoustic Specialist in Czechoslovakia

Orig Pub : Pokroky mat., fys. a astron., 1958, 3, No 3, 384-385

Abstract : Brief description of the visit of Soviet acousticians--Academician S.N. Andreyev, corresponding member Academy of Sciences, USSR, L.M. Brekhovskikh, and Professor S.N. Rzhevkin, in Czechoslovakia. The papers delivered by these scientists are listed, and the consultation work that they performed is reported. At the Congress of Czechoslovak Physicists, the resolution noted the need for creating an acoustic institute, analogous to the acoustic institute of the Academy of Sciences, USSR. -- C.G. Khraban

Card : 1/1

SLAVIK, J; TICHY, J.; VONDRUS, K.

"Noise conditions in electric-power plants."

Energetika. Praha, Czechoslovakia. Vol. 8, no. 12, Dec. 1958.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclas

SLAVIK, J.; KLIMES, B.

"Noise conditions in smaller hydroelectric-power plants."

Energetika. Praha, Czechoslovakia. Vol. 8, no. 12, Dec. 1958.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclas

SLAVIK, J.

"Public and health-economic significance of the fight against noise."

NOVA TECHNIKA. Praha, Czechoslovakia. No. 4, 1959

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclas

SLAVIK, J.

"Significance of physics for study in technical fields"

Pokroky Matematiky, Fysiky a Astronomie. Praha, Czechoslovakia. Vol. 4, no. 1, 1959

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclas

SOV/46-5-2-20/34

AUTHORS: Hejd, F. and Slavík, J.B.

TITLE: Removal of Harmful Gases from the Atmosphere by Means of Sound (Ochistka atmosfery ot vrednykh primesey gaza pri pomoshchi zvuka)

PERIODICAL: Akusticheskiy zhurnal, 1959, Vol 5, Nr 2, pp 243-244 (USSR)

ABSTRACT: Sulphur powder is used to cover light-metal castings in order to prevent their oxidation. This may produce gaseous SO_2. In order to remove SO_2 from the atmosphere a gas (e.g. ammonia) which reacts with it is used to produce solid particles which are then coagulated singly. For this purpose Hartmann whistles (or sirens, which are more efficient) were attached to a plate with apertures which is used to cover the casting (Fig.1). Under these whistles small vessels with ammonia were placed. Reaction between SO_2 and NH_3 occurred on the spot, and the resulting solids were attracted to the whistles (Fig.2 shows a whistle before, and Fig.3 after, use). The whistles worked at 8-11 kc/s.

Card 1/2

SLAVIK, J.

"Protection against traffic noise." (Supplement) P. 2.

NOVA TECHNIKA. (Rada vedeckych technickych spolecnosti pri Ceskoslovenske akademii ved). Praha, Czechoslovakia, No. 6, 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8, August 1959.
Uncla.

SLAVIK, J.

TECHNOLOGY

Periodicals: ELEKTROTECHNIK Vol. 14, no. 3, Mar. 1959

SLAVIK , J. Simple detector of phase sequence equipped with glow-discharge tube. p. 100.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 5, May 1959, Unclass.

SLAVIK, J.B.

PHASE I BOOK EXPLOITATION CZECH/5188

Petržílka, Václav, Professor, Doctor, Corresponding Member of the Czechoslovak Academy of Sciences; Josef B. Slavík, Professor, Doctor, Engineer; Ivan Solc, Doctor; Oldřich Taraba, Engineer, Doctor; Jan Tich , Doctor, and Jiří Zelenka, Engineer

Piezoelektřina a její technické použití (Piezoelectricity and Its Technical Use) Praha, Nakl. Československé akademie věd, 1960. 534 p. 1,300 copies printed.

Sponsoring Agency: Československá akedemie věd. Sekce matematicko-fysikální. Scientific Editor: Emanuel Klier, Docent, Doctor; Reviewer: Josef Beneš, Professor, Doctor; Ed. of volume: Antonín Burda.

PURPOSE: The book is intended for students of schools of higher education, physicists, and for scientific and technical personnel concerned with the use of piezoelectricity in electrical engineering, construction, chemistry, biology, medicine, and other fields of science.

Card ~~1/17~~

Piezoelectricity and Its Technical Use CZECH/5188

COVERAGE: The book consists of two parts. The first part deals with the basic physical properties of piezoelectric crystals, the vibrations of piezoelectric resonators, and the technology of producing crystal elements. The second part is devoted to applications of piezoelectric crystals in various branches of engineering, particularly the following: the control of the frequency of broadcasting stations and radio transmitters in general; the production of very selective filters used in long-distance telephone lines and single-sideband transatlantic radiotelephone systems; the production of stable oscillators and timekeeping systems; the generation of ultrasonic waves; and measuring technique. About twenty years ago a book written by two of the present authors, V. Petržílka and J. B. Slavík, was published under the title "Piezoelektřina a její použití v technicke praxi" (Piezoelectricity and Its Uses in Engineering Practice). In 1951 the book "Piezoelektřina I " (Piezoelectricity I), written by V. Petržílka and consisting of a major expansion of the physics section of the earlier edition, was published. The present book, written in cooperation with former students of the

Card 2/17

original authors, represents, therefore, a third version of their work. V. Petržílka edited Part I and also wrote Ch. I. I. Šolc wrote Ch. V, Par. 4 of Ch. VII, and Ch. XI. J. Tichý wrote Ch. II (except Par. 6), Chs. III, IV (except Par. 6), VI (except Pars. 6 and 9), VII (except Pars. 4 and 5), VIII and IX. J. Zelenka wrote Par. 6 of Ch. VI, Par. 5 of Ch. VII, and Ch. X. V. Janovec, Candidate of Sciences, wrote par. 6 of Ch. II, dealing with ferroelectric materials, Par. 6 of Ch. IV, and, together with Doctor H. Arend, Par. 9 of Ch. VI. Part II was written by O. Taraba in collaboration with J. B. Slavík, who also edited this part of the book. The authors thank the following persons for help in editing the manuscript: J. Hanzl, Engineer; C. Höschl, Docent, Engineer; K. Hruška, Graduated Physicist; K. Kratochvíl, Graduated Physicist; J. Kraus, Engineer; J. Paty, Engineer; J. Rais, Docent, Doctor, Engineer; L. Sodomek, Graduated Physicist, and J. Šmíd, Candidate of Sciences, Engineer. They also thank O. Bareš, Engineer, and Jar. Tarabova for help in drawing the figures and preparing the photographs in Part I and Part II, respectively. References follow each chapter, and a general list of 132 references is given at the end of the book. There is also

a glossary of translations of special terms in piezoelectricity into Czech from the following languages: Russian, English, French, and German.

TABLE OF CONTENTS:

PART I.

Z/039/60/021/03/019/028
E073/E135

AUTHOR: J.B. Slavík (Professor, Doctor of Natural Sciences) and ~~Julius Strnad~~ (Professor)

TITLE: Professor Doctor of Natural Sciences J.B. Slavík on the Occasion of his own 60th Anniversary

PERIODICAL: Slaboproudý Obzor, 1960, Vol 21, Nr 3, pp 184-185

ABSTRACT: In this brief note he appeals to the Editorial Board that if anything is to be published on the occasion of his 60th birthday, his letter should be published which states categorically that he is not in favour of any commemoration articles.
Professor J. Strnad adds a few notes on his knowledge of and association with Professor Slavík as a man, and does not discuss any of his scientific achievements.

Card 1/1

Reversible and irreversible ...

rectifiers, prepared by the deposition of 99.999% pure Se were tested, with the temperature of treatment between 20 - 200°C. The measurements were carried out at constant voltage. The duration of the heat treatment was within 70 min. The results of measurements show that changes in electric conductivity are partly of a reversible and partly of an irreversible nature. At a temperature near to the melting point a maximally stable structure transformation of Se and it maximum conductivity are obtained. In the range 100 - 180°C the structure change of Se is adequately stable. Heat treatment of 30 min duration was found to be sufficient; during this the irreversible part of structural change is quite satisfactory. The instability of Se structure, due to inadequate heat treatment may lead to the harmful effect of ageing in the rectifiers; this effect limits the possibilities of their applications. 9 references.
/Abstracter's note: Complete translation./

Card 2/2

SLAVIK, Josef B.; CHALUPOVA, Vera; KLIMES, Bohdan; TICHY, Jiri

Acoustic conditions at the stadium of the 2d National Spartakiad 1960. Slaboproudy obzor 22 no.5:258-265 '61. (EEAI 10:7)

1. Katedra fyziky na elektrotechnicke fakulte Ceskeho vysokeho uceni technickeho v Praze.
(Czechoslovakia--Stadiums)

SLAVIK, Josef B.

Effect of environment on the quality of acoustic perception.
Slaboproudy obzor 22 no.7:401-407 '61.

1. Katedra fyziky na elektrotechnicke fakulte Ceskeho vysokeho uceni technickeho, Praha.

(Sound) (Architectural acoustics)

SLAVIK, J. B., prof., RNDr.; TOMAS, J.

The 2nd Conference on Acoustics in Budapest. Slaboproudy obzor 22 no.12:778 D '61.

(Sound)

TICHY, J.; SLAVIK, J. B., prof., RNDr.

The 4th International Congress on Acustics in Copenhagen. Slaboproudy obzor 22 no.12:778-779 D '61.

(Sound)

S/058/63/000/003/099/104
A059/A101

AUTHORS: Podobský, Jaroslav, Tichý, Jiří, Slavík, Josef B.

TITLE: Investigation of acoustic high-frequency filters

PERIODICAL: Referativnyy zhurnal, Fizika, no. 3, 1963, 57, abstract 3Zh344 ("Sb. Českosl. věd. techn. společn. zdravotní techn. a vzduchotechn. ČSAV", 1962, no. 4, 67 - 102, Czech; summaries in Russian, English, French and German)

TEXT: Acoustic high-frequency filters and their properties are considered. From the basic acoustic determinations, theoretical ratios with respect to the attenuation of filters with outlets are derived. The attenuation of the individual filters has been experimentally established on the basis of measurements of the acoustic pressure before and after the filter. The theoretical values are compared with the measured ones, and it is established that they agree well with each other. A correction should be introduced into the ratio for the acoustic mass of the connecting pipes. From the thecretical ratios derived for one number of connecting pipes in the wall, a general ratio valid for an arbitrary

Investigation of acoustic high-frequency filters

number of connecting pipes at any distances has been established. The calculation of the corresponding ratios for a great number of connecting pipes can be rather laborious. It is, however, possible by an extremely simple method to determine approximately the transmission and attenuation with a great number of connecting pipes. In the paper, the existing theory of acoustic high-frequency filters is specified.

[Abstracter's note: Complete translation]

35737

Z/039/62/023/007/001/005
D409/D301

9.2150

AUTHORS: Kroczek, Julius, Doctor, Engineer, and Slavík, Josef B., Professor, Doctor of Sciences, Engineer

TITLE: Aging of semiconductor, namely selenium rectifiers

PERIODICAL: Slaboproudý obzor, v. 23, no. 7, 1962, 369 - 373

TEXT: Since the service life of selenium rectifiers is considerably shortened by aging, the causes of this phenomenon are investigated with the aid of characteristics changes and provisions listed which limit the aging effect and make selenium rectifiers a dependable electrical component. The physical reason for aging, resulting in an increased resistance in a forward direction, is a structural change in the selenium layer, caused by a diffusion process and accelerated by elevated operating temperatures. In this process, activators diffuse from the selenium layer and deactivators (atmospheric oxygen and chemically active elements used in silicon disc mamufacture) diffuse into the selenium layer. Classical diffusion laws can therefore

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Aging of semiconductor, ...

be used also for quantitative determination of the semiconductor aging process. To limit the aging effect at least in a forward direction, the following technology for selenium-disc preparation is recommended: To increase the stability of the selenium layer, special attention must be paid to the transformation from one into another crystal modification. For both pressed-on and vapor-coated selenium layers, the transformation should be carried out at 140 - 218 °C and the completion of the recrystallization process should be checked by direct electrical conductivity measuring or by a photometer using surface reflection. Only such raw materials should be used which have a low diffusion coefficient and low chemical affinity to the activator, or intermediate layers should be applied to prevent detrimental effects on activators. Oxidation should be avoided during production as much as possible, and discs of air-cooled rectifiers should be protected by laquer coatings. There are 3 figures.

ASSOCIATION: Ústav pro elektrotechniku ČSAV, Praha (Electrical Engineering Institute, Czechoslovak AS, Prague) (J. Kroczek); Fyzikální ústav elektrotechnické fakulty ČVUT, Praha

Aging of semiconductor, ...

Z/039/62/023/007/001/005
D409/D301

(Physical Institute of the Electrical Engineering Department, Czech. Institute of Technology, Prague)
(J.B. Slavik)

SUBMITTED: March 15, 1962

Card 3/3

KODES, Jiri, inz.; KROCZEK, Julius, inz., dr., RNDr.; SLAVIK, Josef B., inz., prof., RNDr.

Diffusion effects in selenium rectifiers demonstrated on a thallium-selenium boundary layer. Acta techn Cz 8 no.2:112-119 '63.

1. Assistent am Physikalischen Institut, Technische Hochschule, Praha 2, Karlovo namesti 13 (for Kodes). 2. Tschechoslowakische Akademie der Wissenschaften, Praha 1, Vaclavske namesti 55 (for Kroczek). 3. Direktor des Physikalischen Institutes, Technische Hochschule, Praha 2, Karlovo namesti 13 (for Slavik).

BOLESLAV, A.; KOLMER, F.; MERHAUT, J.; NEMEC, J.; SLAVIK, J.B., prof.

Report on the 4th International Congress on Acoustics in Copenhagen, August 21-28, 1962. Slaboproudy obzor 24 no.3:183-185 Mr '63.

1. Katedra fyziky, Elektrotechnicka fakulta, Ceske vysoke uceni technicke Praha (for Slavik). 2. Vyzkumny ustav zvukove, obrazove a reprodukcni techniky, Praha (for Kolmer). 3. Statni vyzkumny ustav tepelne techniky, Praha (for Nemec).

C A

IIB

A modification of Friedemann-Haugen method for the specific determination of pyruvic acid in biological material. K. Slavík and Č. Michalec. *Chem. Listy* **43**, 102–4(1949).—Oxalacetic and ketoglutaric acids which interfere during the detn. of pyruvic acid by the Friedemann-Haugen method (cf. *C.A.* **36**, 5492[1]; **37**, 2401[4]) can be removed as heterocyclic compds. by the reaction with N_2H_4. Pyruvic acid is only slightly affected by N_2H_4. It is then transformed to the dinitrophenylhydrazone, which is extd. from an org. solvent with a Na_2CO_3 soln. and detd. colorimetrically. M. H.

CA

11G

The use of diphenylamine reaction for the determination of hexoses in the presence of pentoses, glucuronic acid, and products of the cleavage of sugars in biological material. K. Slavík and C. Michalec. *Chem. Listy* 43, 235-8(1949).—The blue coloration developed by treating hexoses with diphenylamine reagent was used for detn. of hexoses in biol. material. Pentoses give a yellow color; glycine, cystine, arginine, lysine, tyrosine, creatine, histidine, aspartic acid, uric acid, leucine, cholesterol, and lecithin do not give any color reaction in concns. of 2 mg. in 2 ml. water. Hexoses were detd. with an accuracy of 1–1.5% in the presence of pentoses. The rate of cleavage of aldoses and ketoses in EtOH-H_2SO_4 and BuOH-HCl solns. was measured, and the method for detg. aldoses in the presence of ketoses was described.

M. Hudlický

A

7

Partition chromatography between two organic solvents. I. Separation of dinitrophenylhydrazones of the carbonyl fission products of sugars. J. V. Kočiš and K. Slavík (State Univ., Prague). *Collection Czechoslov. Chem. Communs.* 15, 17-25(1950)(in English).—Compds. which are insol. in H_2O but sol. in org. solvents cannot be sepd. by partition chromatography. Sepn. is however possible by partition between 2 org. solvents. The carrier for the stationary phase is acetylated filter paper, the prepn. of which is described. The stationary phase is octanol, $CHCl_3$, trichloroethylene, or $PhCH_2OH$, the mobile phase EtOH (85%) or mixts. of petr. ether-benzene or petr. ether-pyridine. The H_2O-insol. dinitrophenylhydrazones of HCHO, CH_3CHO, $COMe_2$, $AcCH_2CO_2H$, $AcCO_2H$, $HO_2C.CO.CH_2CO_2H$, $HO_2C.CO.(CH_2)_2CO_2H$, and the osazones of $(CHO)_2$, CH_3COCHO (I), and $(HOCH_2)_2CO$ can be sepd. by one or two dimensional chromatograms. The spots are detected by spraying with 10% NaOH which forms blue, red, orange, and brown spots with 2.5 γ. The R_f values of the compds. in various solvent systems are given. I is not pure but contains 3 unknown substances which are revealed in the chromatogram.

K. Schoen

CA

7

Determination of nitrogen with Nessler reagent. K. Slavík and C. Michalec (State Faculty Hosp., Prague, Czech.). *Chem. Listy* **45**, 38(1951).—After oxidizing the sample contg. 10–700 γ N in H_2SO_4 with the addn. of H_2O_2, wash the residue with 5–25 ml. H_2O into a volumetric flask (20–100 ml.), add 3–15 ml. of Nessler reagent and dil. to the mark with H_2O. Measure after 10 min. at 450–490 mμ.

M. Hudlický

1951

CA

Biological Chemistry A
General - II

Enzymic formation of hydroxamic acids from peptides. II. Karel Slavík (State Faculty Hosp., Prague, Czech.). *Chem. Listy* 45, 419-21(1951); cf. *ibid.* 275-8.—The formation of hydroxamic acids from peptides and H_2NOH was followed in the presence of pepsin, trypsin, papain, and various cathepsins. M. Hudlický

SLAVIK, K.; STERZL, J.; RYBOVA, J.

Effect of histamine on glycolysis in bacteria [with summary in German]. Chekh. biol. 1 no.1:79-86 '52. (MLRA 6:12)

1. Tsentral'nyy institut biologii, mikrobiologiya, Praha.
(Histamine) (Glycolysis) (Bacteria)

KOZINSKI, A.W.;MIKULASZEK, E.;SLAVIK, K.

Adsorption of gram-negative endotoxic symplexes on the surface of erythrocytes; utilization of erythrocytes-fixation in the investigation and elution of protein fractions of endotoxic symplex. Med. dosw.mikrob., Warsz. 4 no. 2:187-196 1952.

(CLML 22:4)

1. Of the National Institute of Hygiene in Warsaw and of the Institute of Medical Microbiology of Warsaw Medical Academy and of the Central Laboratory of State Faculty Hospital in Prague, Czechoslovakia.

CA

47

Inhibitors of tissue proteinases in human serum. K. Slavik (State Faculty Hosp., Prague, Czech.). *Chem Listy* 46, 84(1952).—Some cathepsins or their components are inhibited by nonfractionated human serum in their cleaving activity toward gelatin and leucine amide. The activity toward hemoglobin, carbobenzoxy-α-glutamyltyrosine, and benzoylarginine amide is unaffected.

M. Hudlický

Slavik, Karel

Microdetermination of amino nitrogen in blood serum with ninhydrin. Karel Slavik (SFN Lab., Prague, Czech.) *Časopis Lékařů Česk.* 91, 203-4(1952).—The method of Moore and Stein (*C.A.* 43, 2267*c*) was applied to the detn. of NH_2 groups in blood serum. The serum is extd. with PrOH; the color is then developed by the application of a ninhydrin (I) reagent, which contains, in addn. to I, some $SnCl_2.2H_2O$ and has been adjusted with HCl or NaOH to a pH of 5.5. Only NH_2 will react with this reagent; the peptides will not interfere. It has been found that blood serum contains from 2.40 to 3.90 mg. % amino N.

Werner Jacobson

SLAVIK, K.; MICHALEC, C.

Remarks on determination of tyramine and tyrosine with Gerngross reaction. Cas.lek.cesk. 91 no.10:301-302 7 Mar 52.

1. Z Ustredni laboratore SNF, prednosta dr. J.Horejsi.
(TYRAMINE, determination,
Gerngross method)
(TYROSINE, determination,
Gerngross method)

SLAVIK, K.

SLAVIK, K.; SMETANA, R.

Effect of nucleic acids on proteinases [with summary in English]. Sbor.Chekh.khim.rab. 18 no.4:560-568 Ag '53. (MLRA 7:6)

1. Central Laboratory and Laboratory of the Third Clinic of Internal Medicine, the State Faculty Hospital, Prague. (Nucleic acid) (Proteinase)

SLAVIK K.

The effect of nucleic acids on proteinases. p.253
(Chenical Listy. Vol. 47, No 2, Feb. 1953) Czechoslovakia

SO: Monthly List of East European Accessions, Vol. 2, #8, Library of Congress, August 1953, Incl.

SLAVIK, KAREL

Chemical Abst.
Vol. 48
Apr. 10, 1954
Biological Chemistry

Metabolism of folic acid. I. Formation of formyl derivative in liver homogenates. Karel Slavík and Věra Matoulková (Státní fak. nemoc[illegible]Czech.). *Chem. Listy* 47, 1516–21(1953).—Pterins was sepd. by paper chromatography in collidine fractions or lutidine fractions with H_2O-satd. BuOH. Iontophoresis was carried out in 0.5% Na_2CO_3 on paper or paper dust. Ultraviolet light was used for the detection. No oxidation of folic acid with xanthine oxidase was observed in aerobic or anaerobic conditions. Folic acid in 10% liver homogenate gives 10-formylfolic acid having absorption max. at 255 and 365 mμ.

M. Hudlický

SLAVIK, K.

SLAVIK, K.; MATOULKOVA, V.

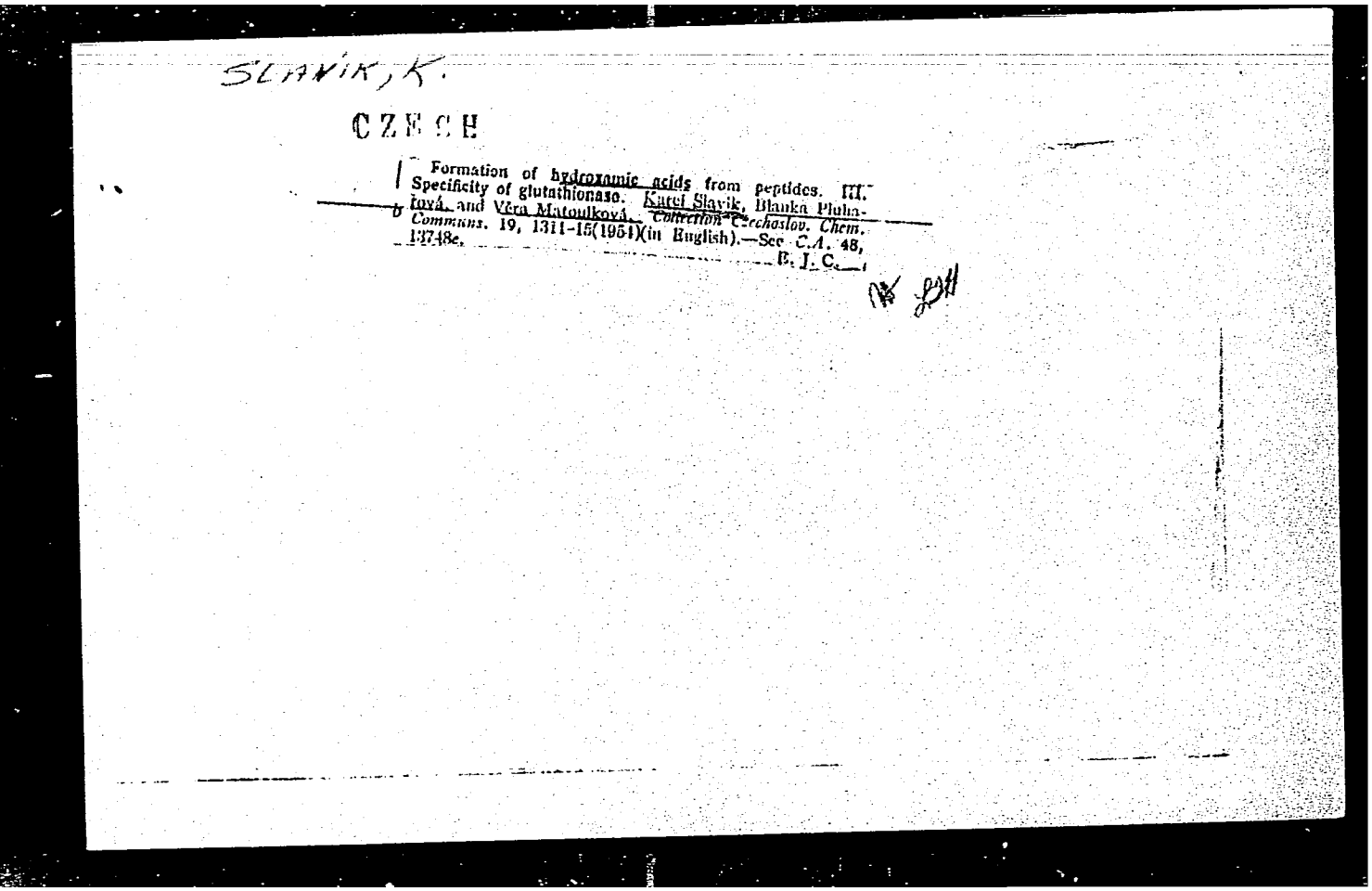
Folic acid metabolism. Part 1. Formation of the formyl derivative in liver homogenates [with summary in English]. Sbor.Chekh.khim.rab. 19 no.2:393-400 Ap '54. (MLRA 7:6)

1. Central Laboratory, First State University Hospital, and Laboratory of the Third Clinic of Internal Medicine, Second State University Hospital, Prague. (Folic acid)

SLAVIK, K.

USSR

Metabolism of folic acid. II. Conditions for the formylation of folic acid. Karel Slavik and Věra Matoulková. *Collection Czechoslov. Chem. Communs.* 19, 1032-8(1954) (in Russian).—See *C.A.* 48, 13748*b*. E. J. C.



SLAVIK, K.

CZECH

Formation of hydroxamic acids from peptides. III. Specificity of glutathionase. Kattel Slavik, Blanka Pluhařová, and Věra Matoulková. *Collection Czechoslov. Chem. Communs.* 19, 1311-15(1954)(in English).—See *C.A.* 48, 13748e.

B. J. C.

Metabolism of folic acid. II. Conditions for the formylation of folic acid. Karel Slavík and Věra Matoulková (Státní ústav pro nemocnice, Prague). *Chem. Listy* 48, 765–9 (1954); cf. *C.A.* 48, 4814*a*.—Paper chromatography of pteridins in aq. solns. was investigated and quant. detn. of formylfolic acid (I) has been carried out. R_f values in 0.1*N* HCl, 0.1*N* NaOH, in acetate at pH 5, in phosphate at pH 6.6 and 7.7, and in 0.5% Na_2CO_3 are for *pteridine-6-carboxaldehyde*, 0.62, 0.45, 0.35, 0.45, 0.38, 0.42; *pteridine-6-carboxylic acid*, 0.52, 0.63, 0.60, 0.65, 0.55, 0.61; *6-methylpteridine*, 0.78, 0.53, 0.48, 0.53, 0.51, 0.55; leukopterin, 0.30, 0.50, 0.24, 0.29, 0.33, 0.35; formylfolic acid, 0.78, 0.93, 0.77, 0.91, 0.84, 0.87; and folic acid, —, 0.53, 0.32, 0.53, 0.45, 0.50. Histidine, urocanic acid, and formamidinoglutamic acid increase several times the formation of I from folic acid in liver homogenates. Formyl-L-glutamine, m. 138°, were prepd. from the corresponding compds. by treatment with 80% HCO_2H and Ac_2O.

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I Formation of hydroxamic acids from peptides. III. Specificity of glutathionase. Karel Slavík, Blanka Flusharová, and Věra Matoulková (Výzkumný ústav potravinářský, Prague). *Chem. Listy*, 48, 1078-81(1954); cf. *C.A.* 46, 11264b.—Transpeptidation (by way of hydroxamic acid formation) and hydrolysis of simple γ-glutamyl peptides by means of glutathionase were followed by paper chromatography. The sequence for transpeptidation was glutamine > γ-glutamylglycine, γ-glutamylglycinamide > γ-glutamyltyrosine; sequence for hydrolysis was γ-glutamylglycine > γ-glutamylglycine amide > glutamine > γ-glutamyltyrosine. Hydrolysis and transpeptidation occur with γ-amino acids, having a COOH group in the γ position; their rates depend on the substituents bound to the γ-amino group. Glutathionase is not stereo-specific, but the rates of hydrolysis and transpeptidation of D-glutamic derivs. are lower than those of the L antipodes. M. Hudlický

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Chromatographic determination of argentophil substances in urine.
Cas. lek. cesk. 93 no.44:1228-1229 20 Oct 54.

1. OUNZ Frenstat p. Radhostem, lusk. cast, detske oddeleni (for Styblo) 2. Centralni laborator statni fak. nem. prof. Dr. Horejsiho (for Slavik)

(URINE,
argentophil substances, chromatography)